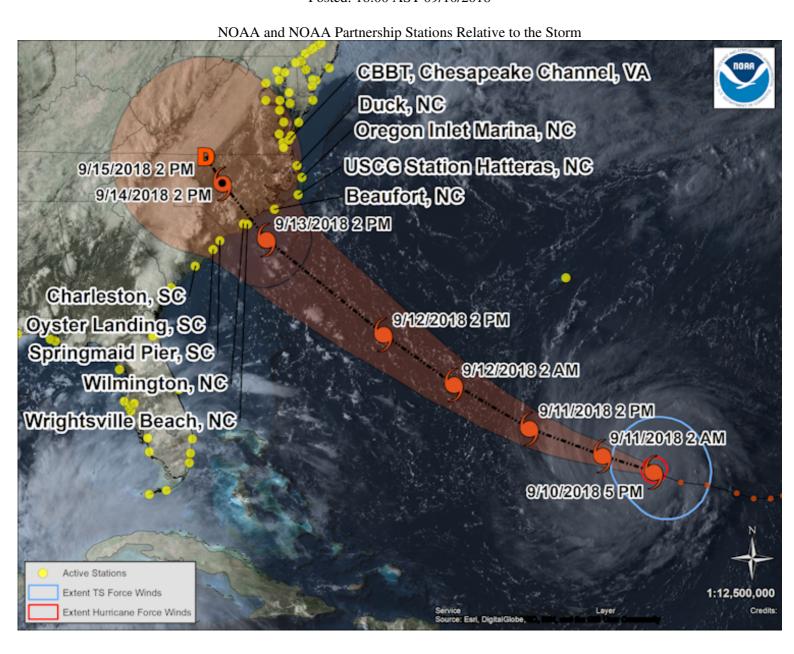




Hurricane Florence QuickLook Posted: 18:00 AST 09/10/2018



Storm Analysis

As of 09/10/2018 18:00 AST, water levels across the Mid-Atlantic are elevated due to abnormally high tide levels. From South Carolina to Pamlico Sound, water levels range from 0 to 0.9 ft above normal tide levels. From Duck, NC to the Entrance of the Chesapeake Bay, water levels are also elevated due to excessive runoff associated with recent heavy rainfall and range from 1.3 to 1.8 ft above normal tide levels.

Winds are generally breezy, ranging from 5-15 knots with slightly higher gusts. Barometric pressure is steady across the region.

Water Level and Meteorological plots available below are updated automatically. A line denoting <u>Mean Higher High Water</u> (MHHW) is displayed to provide an approximate indication of when flooding inundation may occur.

For additional real-time and historical inundation information for select stations affected by this storm, please visit <u>Coastal Inundation Dashboard</u>. For additional data, please see the <u>Center for Operational Oceanographic Products & Services</u> website.

For more information or archived products and reports, please visit the **Storm QuickLook** Homepage.

Analyst: CMF

Select National Hurricane Center Advisory Information:

Hurricane Florence Advisory Number 46 NWS National Hurricane Center Miami FL AL062018 500 PM AST Mon Sep 10 2018

...FLORENCE GROWING IN SIZE AND STRENGTH...

...HURRICANE AND STORM SURGE WATCHES COULD BE ISSUED TUESDAY MORNING...

WATCHES AND WARNINGS

There are no coastal watches or warnings in effect.

Interests in the southeastern and mid-Atlantic states should monitor the progress of Florence. Storm Surge and Hurricane watches could be issued for portions of these areas by Tuesday morning.

DISCUSSION AND OUTLOOK

At 500 PM AST (2100 UTC), the eye of Hurricane Florence was located near latitude 25.4 North, longitude 61.1 West. Florence is moving toward the west-northwest near 13 mph (20 km/h). This general motion with an increase in forward speed is expected during the next couple of days. A turn toward the northwest is forecast to occur late Wednesday night. On the forecast track, the center of Florence will move over the southwestern Atlantic Ocean between Bermuda and the Bahamas Tuesday and Wednesday, and approach the coast of South Carolina or North Carolina on Thursday.

Data from a NOAA Hurricane Hunter aircraft indicate that maximum sustained winds have increased near 140 mph (220 km/h) with higher gusts. Florence is a category 4 hurricane on the Saffir-Simpson Hurricane Wind Scale. Further strengthening is anticipated, and Florence is expected to be an extremely dangerous major hurricane through Thursday.

Hurricane-force winds extend outward up to 40 miles (65 km) from the center and tropical-storm-force winds extend outward up to 150 miles (240 km).

The estimated minimum central pressure from NOAA Hurricane Hunter aircraft data is 939 mb (27.73 inches).

HAZARDS AFFECTING LAND

SURF: Swells generated by Florence are affecting Bermuda and portions of the U.S. East Coast. These swells are likely to cause life-threatening surf and rip current conditions. Please consult products from your local weather office.

NEXT ADVISORY

Next complete advisory at 1100 PM AST.

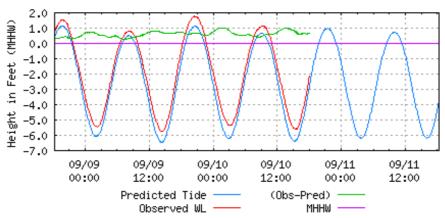
Forecaster Blake

For the purpose of timely release, data contained within this QuickLook have undergone a "limited" NOS Quality Assurance/Control; however, the data have not yet undergone final verification. All data subject to NOS verification.

Jump to: Charleston, Cooper River Entrance - Water Level, Charleston, Cooper River Entrance - Winds, Charleston, Cooper River Entrance - Barometric, Oyster Landing (N Inlet Estuary) - Water Level, Springmaid Pier - Water Level, Wrightsville Beach - Water Level, Wrightsville Beach - Barometric, Wilmington - Water Level, Wilmington - Barometric, Beaufort, Duke Marine Lab - Water Level, Beaufort, Duke Marine Lab - Winds, Beaufort, Duke Marine Lab - Barometric, USCG Station Hatteras - Water Level, USCG Station Hatteras - Winds, USCG Station Hatteras - Barometric, Oregon Inlet Marina - Water Level, Oregon Inlet Marina - Winds, Oregon Inlet Marina - Barometric, Duck - Water Level, Duck - Winds, Duck - Barometric, CBBT, Chesapeake Channel - Water Level, CBBT, Chesapeake Channel - Barometric

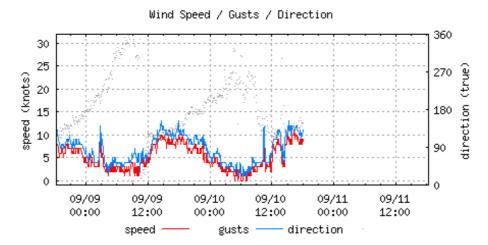
NOAA/NOS/CO-OPS 8665530 Charleston, Cooper River Entrance, SC

Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 09/10/2018 18:06 (EDT). Data relative to MHHW Observed: -1.91 ft. Predicted: -2.64 ft. Residual: 0.73 ft. Historical Maximum Water Level: Sep 21 1989, 6.76 ft. Next High Tide: 09/10/2018 21:25 (EDT), 0.97 ft.

NOAA/NOS/CO-OPS 8665530 Charleston, Cooper River Entrance, SC



Last Observed Sample: 09/10/2018 18:06 (EDT) Wind Speed: 9 knots Gusts: 11 knots Direction: 147° T

NOAA/NOS/CO-OPS 8665530 Charleston, Cooper River Entrance, SC

Barometric Pressure 1017 1016 Pressure (mb) 1015 1014 1013 1012 1011 09/09 09/09 09/10 09/10 09/11 09/11 00:00 12:00 00:00 00:00 12:00 12:00 barometric pressure

Last Observed Sample: 09/10/2018 18:06 (EDT)
Barometric Pressure: 1014.1 mb

NOAA/NOS/CO-OPS 8662245 Oyster Landing (N Inlet Estuary), SC

Preliminary Water Level, relative to Mean Higher High Water(MHHW) 2.0 Feet (MHHW) 1.0 0.0 -1.0 -2.0 ä -3.0 Height -4.0 -5.0 -6.0 09/09 09/09 09/10 09/10 09/11 09/11 00:00 12:00 00:00 12:00 12:00 00:00 Predicted Tide (Obs-Pred)

Last Observed Sample: 09/10/2018 18:06 (EDT). Data relative to MHHW Observed: -2.43 ft. Predicted: -3.26 ft. Residual: 0.83 ft. Historical Maximum Water Level: Oct 8 2016, 4.64 ft.

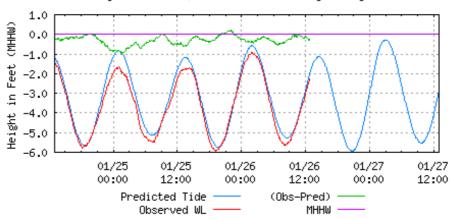
MHHW

Observed WL

Next High Tide: 09/10/2018 22:17 (EDT), 0.52 ft.

NOAA/NOS/CO-OPS 8661070 Springmaid Pier, SC

Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 01/26/2018 12:48 (EST). Data relative to MHHW Observed: -2.28 ft. Predicted: -2.01 ft. Residual: -0.27 ft. Historical Maximum Water Level: Sep 21 1989, 8.77 ft. Next High Tide: 01/26/2018 14:31 (EST), -1.14 ft.

NOAA/NOS/CO-OPS 8658163 Wrightsville Beach, NC

Preliminary Water Level, relative to Mean Higher High Water(MHHW) 2.0 Height in Feet (MHHW) 1.0 0.0 -1.0 -2.0 -3.0 -4.0 -5.0 09/09 09/09 09/10 09/10 09/11 09/11 00:00 12:00 12:00 12:00 00:00 00:00 Predicted Tide (Obs-Pred) MHHW Observed WL

Last Observed Sample: 09/10/2018 18:06 (EDT). Data relative to MHHW Observed: -0.36 ft. Predicted: -1.15 ft. Residual: 0.79 ft. Historical Maximum Water Level: Oct 4 2015, 2.97 ft. Next High Tide: 09/10/2018 20:39 (EDT), 0.99 ft.

NOAA/NOS/CO-OPS 8658163 Wrightsville Beach, NC

Wind Speed / Gusts / Direction 360 30 25 direction (true) 270 speed (knots) 20 180 15 90 5 09/11 09/09 09/09 09/10 09/10 09/11 00:00 12:00 00:00 12:00 00:00 12:00 speed -- direction gusts

Last Observed Sample: 09/10/2018 18:06 (EDT) Wind Speed: 10 knots Gusts: 11 knots Direction: 151° T

NOAA/NOS/CO-OPS 8658163 Wrightsville Beach, NC

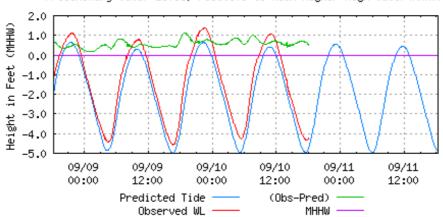
Barometric Pressure 1017 1016 Pressure (mb) 1015 1014 1013 1012 1011 09/09 09/09 09/11 09/10 09/10 09/11 00:00 12:00 00:00 12:00 00:00 12:00 barometric pressure

Last Observed Sample: 09/10/2018 18:06 (EDT)

Barometric Pressure: 1015.1 mb

NOAA/NOS/CO-OPS 8658120 Wilmington, NC

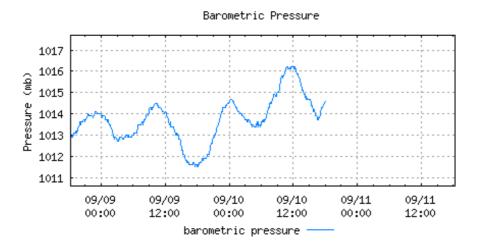
Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 09/10/2018 18:06 (EDT). Data relative to MHHW Observed: -4.22 ft. Predicted: -4.73 ft. Residual: 0.51 ft. Historical Maximum Water Level: Oct 8 2016, 3.48 ft.

Next High Tide: 09/10/2018 23:10 (EDT), 0.55 ft.

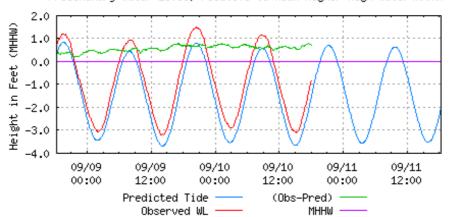
NOAA/NOS/CO-OPS 8658120 Wilmington, NC



Last Observed Sample: 09/10/2018 18:06 (EDT)
Barometric Pressure: 1014.6 mb

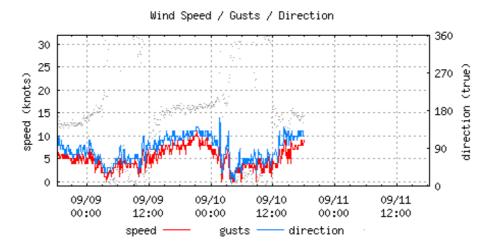
NOAA/NOS/CO-OPS 8656483 Beaufort, Duke Marine Lab, NC

Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 09/10/2018 18:06 (EDT). Data relative to MHHW Observed: -0.73 ft. Predicted: -1.46 ft. Residual: 0.73 ft. Historical Maximum Water Level: Sep 19 1955, 3.39 ft. Next High Tide: 09/10/2018 21:16 (EDT), 0.70 ft.

NOAA/NOS/CO-OPS 8656483 Beaufort, Duke Marine Lab, NC



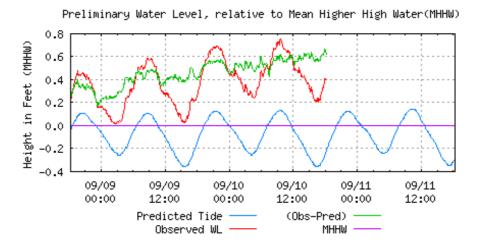
Last Observed Sample: 09/10/2018 18:06 (EDT) Wind Speed: 8 knots Gusts: 11 knots Direction: 170° T

NOAA/NOS/CO-OPS 8656483 Beaufort, Duke Marine Lab, NC

Barometric Pressure 1017 1016 Pressure (mb) 1015 1014 1013 1012 1011 09/09 09/09 09/10 09/10 09/11 09/11 00:00 12:00 00:00 12:00 00:00 12:00 barometric pressure

Last Observed Sample: 09/10/2018 18:06 (EDT)
Barometric Pressure: 1015.2 mb

NOAA/NOS/CO-OPS 8654467 USCG Station Hatteras, NC



Last Observed Sample: 09/10/2018 18:12 (EDT). Data relative to MHHW Observed: 0.40 ft. Predicted: -0.22 ft. Residual: 0.62 ft. Historical Maximum Water Level: Oct 9 2016, 5.76 ft. Next High Tide: 09/10/2018 22:15 (EDT), 0.13 ft.

NOAA/NOS/CO-OPS 8654467 USCG Station Hatteras, NC

Wind Speed / Gusts / Direction 360 30 25 270 direction (true) speed (knots) 20 180 15 90 5 09/11 09/09 09/09 09/10 09/11 00:00 12:00 00:00 12:00 00:00 12:00 speed --direction gusts

Last Observed Sample: 09/10/2018 18:12 (EDT) Wind Speed: 8 knots Gusts: 11 knots Direction: 160° T

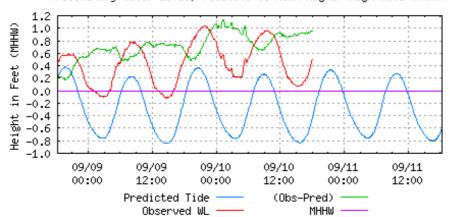
NOAA/NOS/CO-OPS 8654467 USCG Station Hatteras, NC

Barometric Pressure 1017 1016 Pressure (mb) 1015 1014 1013 1012 1011 09/09 09/09 09/11 09/10 09/10 09/11 00:00 12:00 00:00 12:00 00:00 12:00 barometric pressure

Last Observed Sample: 09/10/2018 18:12 (EDT)
Barometric Pressure: 1015.1 mb

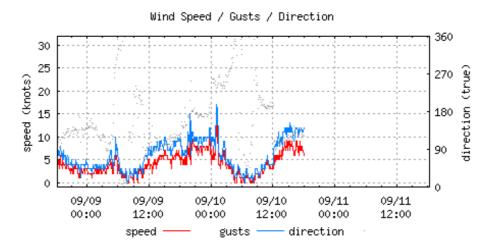
NOAA/NOS/CO-OPS 8652587 Oregon Inlet Marina, NC

Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 09/10/2018 18:00 (EDT). Data relative to MHHW Observed: 0.50 ft. Predicted: -0.45 ft. Residual: 0.95 ft. Historical Maximum Water Level: Aug 28 2011, 6.31 ft. Next High Tide: 09/10/2018 21:27 (EDT), 0.33 ft.

NOAA/NOS/CO-OPS 8652587 Oregon Inlet Marina, NC



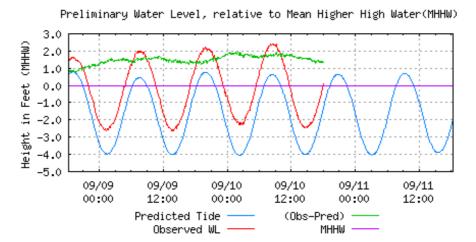
Last Observed Sample: 09/10/2018 18:00 (EDT) Wind Speed: 6 knots Gusts: 12 knots Direction: 121° T

NOAA/NOS/CO-OPS 8652587 Oregon Inlet Marina, NC

Barometric Pressure 1017 1016 Pressure (mb) 1015 1014 1013 1012 1011 09/09 09/09 09/10 09/10 09/11 09/11 00:00 12:00 00:00 12:00 00:00 12:00 barometric pressure

Last Observed Sample: 09/10/2018 18:00 (EDT)
Barometric Pressure: 1015.1 mb

NOAA/NOS/CO-OPS 8651370 Duck, NC



Last Observed Sample: 09/10/2018 18:06 (EDT). Data relative to MHHW Observed: 0.11 ft. Predicted: -1.24 ft. Residual: 1.35 ft. Historical Maximum Water Level: Sep 18 2003, 4.13 ft. Next High Tide: 09/10/2018 20:46 (EDT), 0.64 ft.

NOAA/NOS/CO-OPS 8651370 Duck, NC

Wind Speed / Gusts / Direction 360 30 25 direction (true) 270 speed (knots) 20 180 15 90 5 09/11 09/09 09/09 09/10 09/10 09/11 00:00 12:00 00:00 12:00 00:00 12:00 speed -- direction gusts

Last Observed Sample: 09/10/2018 18:06 (EDT) Wind Speed: 11 knots Gusts: 13 knots Direction: 140° T

NOAA/NOS/CO-OPS 8651370 Duck, NC

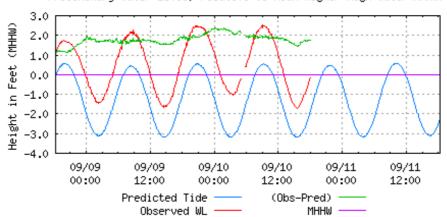
Barometric Pressure 1017 1016 Pressure (mb) 1015 1014 1013 1012 1011 09/09 09/09 09/11 09/11 09/10 09/10 00:00 12:00 00:00 12:00 00:00 12:00 barometric pressure

Last Observed Sample: 09/10/2018 18:06 (EDT)

Barometric Pressure: 1014.7 mb

NOAA/NOS/CO-OPS 8638901 CBBT, Chesapeake Channel, VA

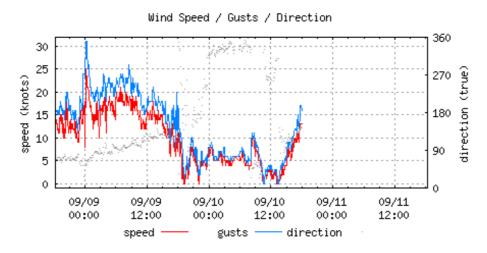
Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 09/10/2018 18:00 (EDT). Data relative to MHHW Observed: -0.15 ft. Predicted: -1.89 ft. Residual: 1.74 ft.

Historical Maximum Water Level: n/a Next High Tide: 09/10/2018 21:41 (EDT), 0.47 ft.

NOAA/NOS/CO-OPS 8638901 CBBT, Chesapeake Channel, VA



Last Observed Sample: 09/10/2018 18:00 (EDT) Wind Speed: 13 knots Gusts: 16 knots Direction: 143° T

NOAA/NOS/CO-OPS 8638901 CBBT, Chesapeake Channel, VA

Barometric Pressure 1017 1016 Pressure (mb) 1015 1014 1013 1012 1011 09/09 00:00 09/09 12:00 09/10 12:00 09/11 12:00 09/10 09/11 00:00 00:00 barometric pressure

Last Observed Sample: 09/10/2018 18:00 (EDT)
Barometric Pressure: 1013.9 mb

Latest Water Level Observations on MHHW

Station ID	Station Name	Date/Time	Observed Water Level	Predicted Tide	Residual Water Level	24 Hour Maximum Storm Tide
8665530	Charleston, Cooper River Entrance, SC	09/10/2018 18:06 (EDT)	-1.91 ft	-2.64 ft	0.73 ft	1.78 ft
8662245	Oyster Landing (N Inlet Estuary), SC	09/10/2018 18:06 (EDT)	-2.43 ft	-3.26 ft	0.83 ft	1.58 ft
8661070	Springmaid Pier, SC	01/26/2018 12:48 (EST)	-2.28 ft	-2.01 ft	-0.27 ft	-0.91 ft
8658163	Wrightsville Beach, NC	09/10/2018 18:06 (EDT)	-0.36 ft	-1.15 ft	0.79 ft	1.90 ft
8658120	Wilmington, NC	09/10/2018 18:06 (EDT)	-4.22 ft	-4.73 ft	0.51 ft	1.37 ft
8656483	Beaufort, Duke Marine Lab, NC	09/10/2018 18:06 (EDT)	-0.73 ft	-1.46 ft	0.73 ft	1.49 ft
8654467	USCG Station Hatteras, NC	09/10/2018 18:12 (EDT)	0.40 ft	-0.22 ft	0.62 ft	0.76 ft
8652587	Oregon Inlet Marina, NC	09/10/2018 18:00 (EDT)	0.50 ft	-0.45 ft	0.95 ft	1.04 ft
8651370	Duck, NC	09/10/2018 18:06 (EDT)	0.11 ft	-1.24 ft	1.35 ft	2.42 ft
8638901	CBBT, Chesapeake Channel, VA	09/10/2018 18:00 (EDT)	-0.15 ft	-1.89 ft	1.74 ft	2.52 ft

Center for Operational Oceanographic Products & Services (CO-OPS) | National Ocean Service (NOS) National Oceanic and Atmospheric Administration | U.S. Department of Commerce